

Name _____
Predicting Reaction Products – Will Reactions Happen?

Single Replacement Reactions: Use the activity series to determine if the following reactions will take place. If the reactants are given as words, write the formulas. If there is a reaction, predict the products and balance the equation. If there is no reaction, write NR or No Reaction.

1. $\text{Al} + \text{FeCl}_3 \rightarrow$
2. $\text{CdS} + \text{Sn} \rightarrow$
3. Magnesium metal and Zinc chlorite
4. $\text{Hg}(\text{NO}_2)_2 + \text{Ag} \rightarrow$
5. $\text{Pb} + \text{HClO}_4 \rightarrow$
6. Lithium metal and water
7. Platinum and oxygen gas
8. Zinc and water
9. Calcium chloride and iodine
10. Stannic bromide and fluorine

Double Replacement Reactions: Use the solubility table to determine if the following reactions will take place. If the reactants are given as words, write the formulas. If there is a reaction, predict the products and balance the equation. If there is no reaction, write NR or No Reaction.

11. $\text{Ag}(\text{NO}_3)_3 + \text{KCl} \rightarrow$
12. $\text{Al}_2(\text{SO}_4)_3 + (\text{NH}_4)_2\text{S} \rightarrow$
13. $\text{NaOH} + \text{BaBr}_2 \rightarrow$
14. magnesium chlorate + barium oxide \rightarrow
15. stannous chloride + hydrosulfuric acid \rightarrow
16. zinc acetate + sodium phosphate \rightarrow
17. calcium nitrate + iron (III) chloride \rightarrow
18. copper (II) nitrate + sodium hydroxide \rightarrow
19. aluminum chlorate + calcium iodide \rightarrow
20. ammonium iodide + mercury (II) nitrate \rightarrow